

# Bylaws of the JETSCAPE Collaboration

This document presents the Bylaws of the JETSCAPE Collaboration, stipulating its organization and procedures. These Bylaws can be amended by a binding vote of the JETSCAPE Council, as described below.

## 1 Investigators and Collaborators

The JETSCAPE Collaboration is defined as the set of Principle Investigators (PIs), co-investigators, and designated or funded members from institutions that submitted the JETSCAPE proposal. The PIs are responsible for representing their institution to the Council and for defining the list of members from within their respective institutions and disseminating collaboration information to those members. In addition, the PIs are responsible for ensuring that work on the JETSCAPE framework is consistent with the collaboration goals and by-laws. It is expected that all collaborators will use JETSCAPE funding to support research activities that are consistent with the overall goals of the collaboration.

New PIs may be admitted to the collaboration by receipt of a supplemental funding award following the consent of the council. This will require the submission of a research proposal by the prospective PI to the council and its ratification by the council. The council will vote on the inclusion of the new member. The inclusion of new members will require 10 of 14 (or 2/3) majority vote. Following a successful vote for inclusion, the council will provide a special letter of support, to be submitted as an attachment with the prospective PI's NSF proposal. On receipt of award, the new PI becomes a member of the council.

Unfunded collaborators shall be admitted to the Collaboration by the Council upon recommendation by the Spokesperson. Unfunded collaborators may request a letter of support to apply for NSF or DOE funding to carry out their own research in partial collaboration with JETSCAPE. Such letters will be provided on a case by case basis by the spokesperson in consultation with the council.

## 2 Council

The Council comprises all Principle Investigators.

The Council shall elect a chair to convene and run Council meetings on a regular basis, and will serve as the representative of the Council. The Council Chair is elected for a period of 2-years.

All major decisions regarding membership, policies, changes to bylaws, and organization requires a binding vote by the council, defined as a vote with a quorum of at least 2/3 of all PIs participating and a majority approval of 2/3 of all JETSCAPE PIs.

The council will also decide on nominations of speakers to major conferences. These decisions will be taken by a simple majority vote of council members attending a meeting to decide speakers.

### 3 The Collaboration Author list

The JETSCAPE collaboration author list in any given year (Defined from September 1st to August 31st of the following year), is composed of its 14 PIs, students and research staff of these PIs, either funded or designated by the PIs. It also includes a select set of associate members who in any given year have made a significant contribution to any given product, infrastructure or JETSCAPE activity. See the JETSCAPE publication guidelines for further information.

### 4 Spokesperson

The Spokesperson will represent the Collaboration in all scientific, technical, and organizational matters.

The spokesperson is elected by majority vote of the Council to serve a term of 2-years. The spokesperson will be nominated by a council member and elected in the council with a 2/3 majority vote of the entire council.

The Spokesperson will work with both the Executive Oversight committee and all working groups and is the final arbiter in all scientific and technical matters. The Spokesperson is responsible for ensuring the publication of scientific results and the dissemination of code to the community in a timely and responsible fashion. The Spokesperson will be the main contact between the collaboration and the NSF.

The spokesperson may nominate a deputy-spokesperson to assist in performing the duties of the spokesperson. The nominee is subject to majority confirmation by the council and serves for a term equal to that of the spokesperson.

### 5 Executive Oversight Committee

The Executive Oversight (EXEC) Committee comprises all members of the Council and the JETSCAPE Working Group Conveners. The EXEC Committee will review and oversee the work of the various working groups and provide feedback to the conveners and guidance to the Spokesperson. The EXEC Committee will meet regularly to receive status reports from the working groups.

### 6 Working Groups

All working group conveners are appointed by the Spokesperson and confirmed by the Council. They will serve terms of 2-years.

## 6.1 The Computing and Software Design working group (COMP-WG)

The COMP-WG will:

- design the overarching framework and modify as needed,
- design the data structures required for current and future event generators,
- collaborate with the PHYS-WG to design the algorithms according to modeling requirements,
- collaborate with the PHYS-WG and STAT-WG on coding framework,
- maintain public and private code repositories, and set up regression routines and nightly rebuilds,
- continuously design new test cases to test modifications to the software.

## 6.2 The Physics Modeling working group (PHYS-WG)

The PHYS-WG will,

- work with the COMP-WG to design emulators,
- be tasked with solving outstanding modeling problems,
- continuously incorporate new physics routines within the framework designed by the COMP-WG,
- work closely with the COMP- AND STAT-WG to suggest required changes to the framework.
- decide on different observables to compare between the baseline event generator and data.
- work both with the STAT-WG and the external community to improve physics models

## 6.3 The Data Comparison and Statistics working group (STAT-WG)

The STAT-WG will,

- work with the PHYS- and COMP-WG to define multiple formats to compare with experimental data,
- set up emulation routines for extensive data sets, and work with the COMP-WG to design generic emulation routines,
- design new observables, in collaboration with the PHYS-WG,
- design comprehensive statistical tests to distinguish between different physics model assumptions,
- work with experimental representatives and the DOCS-WG group to obtain data for comparison

## **6.4 The Documentation, Website, Allocation and Dissemination (DOCS-WG)**

The PUBS-WG will,

- continuously update the website of the collaboration with new information regarding the use of the developed software,
- write the manual of the full software product
- aid in the design of course material to be used in a future MOOC.
- work with the STAT-WG to ascertain required computational resources and write proposals to large scale computational facilities,
- work with the large experimental collaborations to transfer the final software product to the experiments and other theorists,
- work to support the community wide adoption of the developed product.

## **7 Adoptions and Revisions**

Any adoption of new bylaws or revision of existing bylaws or policies will require a 2/3 vote of the council.